

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election with traverse of Group I, claims 1, 3 and 4 in the reply filed on 12/11/09 is acknowledged. The traversal is on the ground(s) that the cited reference does not disclose all of the features of all of the claims in groups I, II and III specifically the controlling functions. This is not found persuasive because one feature must be common among all groups, given the fact that group III is directed towards an apparatus and not a method of operating, the functional language is not a common technical feature and the only common technical feature common among all of the groups is a fuel cell system having at least one condensing device which has been shown in the prior art as was outlined in the Restriction Requirement dated 11/17/09 and unity is lacking. Furthermore as will be shown in the prior art rejections below since all of the features of claim 1 have been found in one reference there is even more evidence of record that unity is lacking.

The requirement is still deemed proper and is therefore made FINAL.

Claims 2 and 5-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 12/11/09.

***Information Disclosure Statement***

The information disclosure statements (IDS) submitted on 7/14/06 and 8/15/08 have been considered by the examiner.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "the fluid balance" in line 1, "the amount of liquid" in line 3, "the cooling capacity" in line 5, "the volume flow rate" and "the cathode side" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitations "the waste gases", "the condensation procedure" and "the fuel cell device" in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the waste gases" and "the condensation procedure" in line 4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 63-066860 hereinafter Kuroda.

Through the provided English Abstract by applicants, Kuroda teaches a method for controlling a fluid balance in an anode circuit of a fuel cell system, comprising opening valves 9 and 10 and operating blower 4 to increase the supply of air to a cathode side of the fuel cell system (i.e. adjusting the volume flow rate on the cathode side) thereby providing a large volume of water vapor in a cathode exhaust that will be condensed (i.e. cooling gases) into condensed water 30 (i.e. condensed liquid) and supplied to the anode circuit of the fuel cell system all in response to a control signal from a liquid level sensor 8 (i.e. a measured quantity characteristic of the amount of liquid or changes in the amount of liquid in the fuel cell system) that is compared to a specified value.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pre-Grant Publication No. 2001/0028968 hereinafter Griesmeier in view of Kuroda.

As seen in the figure, Griesmeier teaches a method for controlling a fluid balance in an anode circuit of a fuel cell system comprising; cooling gases discharged from a cathode exhaust in a condenser 14b to obtain a condensed liquid that is then fed to the anode circuit; heating waste gases from the fuel cell after the condenser has condensed the liquid out of the stream (paragraph [0026]) and then passing the heated waste gases through a catalytic burner 6 (paragraphs [0017]-[0027]).

Griesmeier does not teach measuring the amount of condensed liquid and adjusting a parameter of the fuel cell system based on said measurement.

Kuroda as discussed above is incorporated herein.

At the time of the invention it would have been obvious to one having ordinary skill in the art to measure the liquid level of the condensed liquid and increase the air supplied to the cathode side of the fuel cell in Griesmeier as taught by Kuroda in order to provide a fuel cell system that does not require the supply of water from an external

source (Kuroda abstract) thereby making the fuel cell system self-sufficient. If a technique has been used to improve one device (measuring the liquid level of the condensed liquid and increasing the air supplied to the cathode side of the fuel cell), and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way (providing a fuel cell system that does not require the supply of water from an external source (Kuroda abstract) thereby making the fuel cell system self-sufficient), using the technique is obvious unless its actual application is beyond his or her skill. See MPEP 2141 (III) Rationale C, KSR v. Teleflex (Supreme Court 2007).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HODGE whose telephone number is (571)272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571) 272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert Hodge/  
Primary Examiner, Art Unit 1795